

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Implementation of Section 304 of the	)	
Telecommunications Act of 1996	)	CS Docket No. 97-80
	)	
Commercial Availability of Navigation Devices	)	
	)	
Compatibility Between Cable Systems and	)	PP Docket No. 00-67
Consumer Electronics Equipment	)	

**REPLY COMMENTS**

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## **SUMMARY**

The Commission is charged in this proceeding with making decisions that strike an appropriate balance between consumers' interest in having a wide array of devices and services available to maximize their enjoyment of digital media and content owners' and cable operators' interest in securing their valuable content against piracy and theft. The comments filed by the IT Industry Commenters and others in response to the *Plug-and-Play Further Notice* offer the Commission a clear path to accomplish that goal. We have urged the Commission to adopt rules that will both facilitate the emergence of a vibrant competitive market for digital entertainment devices (by expanding the range of digital output and content protection technologies approved for use with those devices) *and* reassure content owners and distributors that their content will be protected and no harm will be caused to their networks by technologies satisfying specific functional criteria. These rules will not only finally give effect to Section 629 of the Communications Act but also will advance the larger goals of encouraging the transition to DTV and promoting economic growth.

We believe as a general matter that consumers should determine the direction of technology without government intervention. Where the Commission does intervene, it should do so with the goal of correcting marketplace distortions to achieve maximum consumer choice and freedom in the market. That goal will be undermined if the rules adopted in this proceeding leave decisions about outputs and content protection technologies to be used in Unidirectional Digital Cable Products to industry segments whose decisions will necessarily be driven more by the narrow view of the particular industry than by the full range of competitive and consumer considerations. Thus, the Commission should not assign control over digital content protection decisions to the narrow "market" of major studios and cable operators. Instead, the Commission

should adopt rules that allow the broader consumer marketplace to determine the winners and losers from among the full range of technologies and related devices providing a robust and reasonable level of protection to digital content.

These rules, as to which there is broad consensus among the commenters, should further the following principles:

- Digital output and content protection technologies should be entitled to approval for use with Unidirectional Digital Cable Products if they satisfy objective, functional criteria along the lines of those proposed by the IT Industry Commenters;
- Decisions concerning the approval of such technologies should be made by self-certification or by an independent third party; and
- Approved technologies should be subject to “de-listing” only prospectively upon a showing of significant harm that outweighs the harm to consumers, manufacturers and technology developers from such de-listing.

The content and cable industries have not refuted the arguments supporting these principles or shown how rules embodying these principles would undermine the security of digital cable content or networks.

Finally, the Commission should encourage and support voluntary product labeling and consumer education efforts to increase consumer awareness of the functionalities and limitations of Unidirectional Digital Cable Products. It is in the best interests of all the affected industries voluntarily to undertake such efforts to promote overall consumer satisfaction.

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**REPLY COMMENTS**

The comments filed in response to the *Second Further Notice of Proposed Rulemaking* in the above-referenced proceeding<sup>1</sup> evidence broad support, across the information technology and consumer electronics industries and consumer groups, for three critical principles:

- Digital output and content protection technologies should be entitled to approval for use with Unidirectional Digital Cable Products if they satisfy objective, functional criteria along the lines of those proposed by the IT Industry Commenters;
- Decisions concerning the approval of such technologies should be made by self-certification or by an independent third party; and
- Approved technologies should be subject to “de-listing” only prospectively upon a showing of significant harm that outweighs the harm to consumers, manufacturers and technology developers from such de-listing.

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<sup>1</sup> Second Report and Order and Second Further Notice of Proposed Rulemaking, *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, CS Docket No. 97-80, PP Docket No. 00-67, FCC 02-335 (rel. Oct. 9, 2003) (*Plug-and-Play Order and Plug-and-Play Further Notice*).

The affected industries also agree that the Commission should encourage and support voluntary product labeling and other consumer education efforts designed to promote consumer awareness of the functionalities and limitations of Unidirectional Digital Cable Products.

The representatives of the content and cable industries opposing these principles fail to address adequately the concerns of the Commission, the IT Industry Commenters and others that allowing narrow industry segments to control decisions about the deployment of digital output and content protection technologies would stifle innovation and could inhibit the evolution of personal computers (PCs) and PC-based devices into full-fledged digital entertainment devices. Nor do these commenters show how the policy decisions embodied in the principles summarized above would threaten the security or viability of digital cable content or networks.

Accordingly, Microsoft Corporation (Microsoft), Hewlett-Packard Corporation (HP), Dell, Inc. (Dell) and Apple Computer, Inc. (Apple) (collectively, the IT Industry Commenters) hereby submit these reply comments to urge the Commission to adopt the recommendations made in our initial comments and refined herein. As demonstrated below, these proposals will promote both the specific goals of this proceeding and the broader public interest.

**I. A BROAD RANGE OF COMMENTERS SUPPORT APPROVING DIGITAL CONTENT PROTECTION TECHNOLOGIES BASED ON OBJECTIVE, FUNCTIONAL CRITERIA.**

The information technology industry and consumer groups uniformly agree that the Commission should adopt functional criteria, similar to those proposed in the Microsoft-HP August 8, 2003 *ex parte* filing and the IT Industry Comments, for the approval of digital content

protection technologies for use with Unidirectional Digital Cable Products.<sup>2</sup> For example, the American Antitrust Institute (AAI), which is committed to promoting economic competition, argues that the interests of consumers will be promoted by adopting functional criteria that will (1) ensure that PC-based devices are not at a competitive disadvantage to “closed” consumer electronics devices, (2) encourage investment in new technologies and (3) promote the convergence of consumer electronics and information technologies.<sup>3</sup> Public Knowledge and Consumers Union (PK/CU) similarly support basing the approval of new connectors and content protection technologies on the application of objective functional criteria.<sup>4</sup>

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<sup>2</sup> See, e.g., Comments of Intel Corporation, CS Docket No. 97-80, PP Docket No. 00-67, at 4-5 (Feb. 13, 2004) (Intel Comments); Comments of Public Knowledge and Consumers Union, CS Docket No. 97-80, PP Docket No. 00-67, at 8-9 (Feb. 13, 2004) (PK/CU Comments); Comments of the American Antitrust Institute, CS Docket No. 97-80, PP Docket No. 00-67, at 4-5 (Feb. 13, 2004) (AAI Comments). Similar functional criteria have also been proposed in the Commission’s Broadcast Flag proceeding. See, e.g., *Ex Parte* Letter from Richard A. Beutel, Dell Corp. to Marlene H. Dortch, Secretary, FCC, MB Docket No. 02-230 (Oct. 24, 2003) (Dell *Ex Parte*); Comments of the IT Coalition, MB Docket No. 02-230, at 11-13 (Feb. 13, 2004) (IT Coalition Broadcast Flag Comments).

Intel notes that the functional criteria should not be so stringent that they “effectively define a single technological approach and/or practically exclude a broad range of effective technologies that should in fact be approved.” Intel Comments at 5.

<sup>3</sup> AAI Comments at 4-5.

<sup>4</sup> PK/CU Comments at 8-9. PK/CU also argue that content protection technologies should not be approved unless they are “interoperable” with other approved technologies. PK/CU does not define precisely what such “interoperability” must entail except to state that it should allow consumers to purchase new products with new content-protection technologies without sacrificing the use or functionality of older products employing different content-protection technologies. PK/CU Comments at 6. The IT Industry Commenters are committed to interoperability – Microsoft, for example, has consistently discussed its support for the emerging industry standard MPEG-21 Part 5 Rights Expression Language (REL) – and are working towards that goal. However, although close at hand, at this point none of the emerging technology standards have yet been officially sanctioned by the respective ISO standards bodies so as to enable the type of full interoperability contemplated by PK/CU. Under these circumstances, the Commission should not delay approval and deployment of new content protection technologies – and the resulting introduction of new devices in the marketplace – pending the development of full interoperability standards.

Consumer electronics manufacturers, while committed to supporting the *Plug-and-Play MOU's* more narrow criteria for approving digital output and content protection technologies, also express some support for the use of objective, functional criteria not subject to exclusive content industry control.<sup>5</sup> CEA supports the Home Recording Rights Coalition (HRRC) comments from the Broadcast Flag proceeding favoring the use of well-defined, neutral criteria.<sup>6</sup> In comments in this proceeding, HRRC similarly argues that the cable industry and content providers should not exercise exclusive control over the approval of content protection technologies.<sup>7</sup>

Objections to the use of objective, functional criteria are limited primarily to those raised by the Motion Picture Association of America (MPAA) (filing with the major studios), which seeks to preserve what MPAA calls its “marketplace criteria” for technology approval.<sup>8</sup> But the definition of the “market” making decisions under those “criteria” encompasses almost exclusively the studios themselves. Because that market will be driven by the narrow views and subjective criteria of the content industry rather than by the full range of consumer considerations and competitive issues facing technology providers, the “top-down content licensing environment” advocated by MPAA will not necessarily advance the best interests of

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<sup>5</sup> See Comments of the Consumer Electronics Association, CS Docket No. 97-80, PP Docket No. 00-67, at 15 (Feb. 13, 2003) (CEA Comments); Comments of Philips Electronics North America Corp., CS Docket No. 97-80, PP Docket No. 00-67, at 5 (Feb. 13, 2004) (Philips Comments).

<sup>6</sup> The HRRC Broadcast Flag comments observe that in the Broadcast Flag context the House Energy and Commerce Committee supported the use of neutral criteria that are only “high enough” to achieve the stated content protection goals without burdening product design, manufacture or performance or stifling technological innovation. CEA Comments at 14-15.

<sup>7</sup> Comments of Home Recording Rights Coalition, CS Docket No. 97-80, PP Docket No. 00-67, at 9-11 (Feb. 13, 2004) (HRRC Comments).

<sup>8</sup> Comments of the Motion Picture Association of America, Inc. et al., CS Docket No. 97-80, PP Docket No. 00-67, at 2-3 (Feb. 13, 2004) (MPAA Comments).

consumers or foster future innovation.<sup>9</sup> Thus, rather than relying on the narrowly-interested content and cable industries to determine the technologies that can be deployed in the market, the Commission should ensure that consumers are free to choose from among a wide variety of devices incorporating the full range of technologies that, as a functional matter, achieve the goal of protecting controlled content from unauthorized use or distribution.

MPAA also challenges the specific functional criteria proposed in the Microsoft-HP *Ex Parte*, contending that they do not sufficiently define the level of protection that a technology must provide.<sup>10</sup> Many of these criticisms are substantively inaccurate. For example, MPAA claims that the Microsoft-HP criteria would allow “ridiculously weak forms of encryption” because they would require only that an encryption method “be difficult for consumers [to circumvent] using common means.”<sup>11</sup> But the criteria set forth in the Microsoft-HP *Ex Parte* also provide that “[p]eer reviewed and published encryption approaches, including public algorithms such as DES, 3-DES and AES, should be used” and that “the encryption algorithm should be such that detailed knowledge of a given implementation of the algorithm should not, in and of itself, be sufficient to enable the production of circumvention devices.”<sup>12</sup>

To the extent that the MPAA comments raise legitimate concerns about the level of detail or precision in the functional criteria set forth in the Microsoft-HP *Ex Parte*, these

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<sup>9</sup> CEA Comments at 2.

<sup>10</sup> See Comments of the Motion Picture Association of America, et al., MB Docket No. 02-230, at 4-6 (Feb. 13, 2004) (MPAA Broadcast Flag Comments), incorporated in MPAA Comments at 3.

<sup>11</sup> MPAA Broadcast Flag Comments at 5.

<sup>12</sup> *Ex Parte* Letter from Paula H. Boyd, Microsoft Corp. and David Isaacs, Hewlett-Packard Corp., to Marlene H. Dortch, Secretary, FCC, CS Docket No. 97-80, PP Docket No. 00-67, at 7 (Aug. 8, 2003) (Microsoft-HP *Ex Parte*).

shortcomings have largely been resolved in the refined (and even more widely supported) functional criteria set forth in the IT Industry Comments. For example, the criteria set forth in the IT Industry Comments specifically require that an approved content protection method “must prevent the unauthorized use or redistribution (*i.e.*, use or redistribution that is inconsistent with the specified usage rights) of Controlled Content delivered over digital cable systems” and “must securely manage the communication and distribution of any cryptographic keys or methods necessary for decrypting the Controlled Content, using specific means to restrict such communication and distribution.”<sup>13</sup> Any generalities that remain are necessary to ensure that the criteria are broad enough to encompass the full range of effective technologies and to provide flexibility for different implementations now and new innovations in the future.<sup>14</sup>

MPAA does not propose any alternative functional criteria, instead urging the Commission to limit approval to technologies that have been “accepted in the relevant marketplace” (*i.e.*, MPAA’s members) or are “just as effective as one that has.”<sup>15</sup> But there still must be some criteria (and some entity applying the criteria) upon which to determine which technologies are “as effective” as those accepted in the marketplace, and these criteria must provide guidance to technology developers seeking to develop and obtain approval for such technologies. The only other criteria that have been proposed by anyone in the content or cable industries are the recently-proposed CableLabs “objective review criteria” described in the

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<sup>13</sup> Comments of Microsoft Corp., Hewlett-Packard Corp, Dell Corp. and Apple Computer, Inc., CS Docket No. 97-80, PP Docket No. 00-67, at 8-9 (Feb. 13, 2004, *erratum* Feb. 26, 2004) (IT Industry Comments).

<sup>14</sup> See Intel Comments at 5.

<sup>15</sup> MPAA Broadcast Flag Comments at 3.

comments of the National Cable & Telecommunications Association (NCTA).<sup>16</sup> This list of questions to be considered by CableLabs technology evaluators provides substantially less guidance to a developer of a new content protection technology than do the functional criteria supported by the IT Industry Commenters, consumer electronics manufacturers and consumer groups. For example, CableLabs specifies only that it will ask such general questions as “[d]oes the proposed technology adequately protect content,” “[w]hat is the relative strength of the algorithm,” and “[w]hat are the key generation, key protection and key exchange methods used.”<sup>17</sup> CableLabs provides no indication as to what it will consider to be adequate content protection, algorithm strength and key protection. Because these “criteria” provide insufficient clarity and transparency concerning the CableLabs processes, they would discourage innovators from developing new technologies because the innovators could not effectively test and predict in advance whether CableLabs would approve the technologies for use in the market. Accordingly, the IT Industry Commenters urge the Commission to reject this approach and adopt the functional criteria proposed and supported by the IT Industry Commenters and others.

## **II. DECISIONS CONCERNING APPROVAL OF CONTENT PROTECTION TECHNOLOGIES SHOULD BE MADE BY SELF-CERTIFICATION OR BY AN INDEPENDENT THIRD PARTY.**

The comments also show significant support across industry groups for the IT Industry Commenters’ position that decisions concerning the approval of digital output and

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<sup>16</sup> See Comments of the National Cable & Telecommunications Association, CS Docket No. 97-80, PP Docket No. 00-67, at 15-17 (Feb. 13, 2004) (NCTA Comments) (noting that CableLabs is only now “in the process of finalizing the objective review criteria”); MPAA Comments at 2 (“CableLabs should be the initial arbiter of the approval process,” subject to private binding arbitration where “a significant number of objections” are raised with respect to approval or disapproval of a specific technology).

<sup>17</sup> NCTA Comments at 16.

content protection technologies for use with Unidirectional Digital Cable Products should be made through self-certification or by an independent third party (either the Commission or an entity designated by the Commission). Along with the IT Industry Commenters, Intel expressly supports self-certification.<sup>18</sup> CEA, while once again upholding its members' commitment to support the *Plug-and-Play MOU* provision assigning responsibility for initial approval of content protection technologies to CableLabs, also suggests that the experience in the Broadcast Flag interim approval process might show that "self-certification, subject to challenge" is enough to ensure the effectiveness of content protection technologies.<sup>19</sup>

Other commenters, including BellSouth Entertainment, LLC (BellSouth), ATI Technologies, Inc. (ATI), AAI and PK/CU, agree that decisions concerning the approval of digital output and content protection technologies for use with Unidirectional Digital Cable Products should be made by an independent third party rather than by CableLabs.<sup>20</sup> NCTA

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<sup>18</sup> Intel Comments at 6-7.

<sup>19</sup> CEA Comments at 15. The IT Industry Commenters agree that there should be some mechanism for challenging technology self-certifications with the Commission. For example, the Commission could require technology developers to file self-certifications with the Commission describing their digital output and/or content protection technologies and explaining how the technologies protect the security of controlled cable content. The Commission would issue Public Notices describing each self-certification and opening a 20-day period for filing objections followed by a 10-day period for filing replies to any objections. If no objections were filed, the technology would automatically be approved for use with Unidirectional Digital Cable Products. If objections were filed, the issues could be submitted for evaluation in a binding arbitration proceeding administered by the Commission and subject to strict deadlines for resolution. See IT Industry Comments at 12.

<sup>20</sup> Comments of BellSouth Entertainment, LLC, CS Docket No. 97-80, PP Docket No. 00-67, at 3-4 (Feb. 13, 2004) (BellSouth Comments) ("BellSouth believes that the Commission's expressed concerns regarding the effect of CableLabs' gatekeeping role on innovation and interoperability in the MVPD marketplace with respect to unidirectional digital MVPD devices are well-founded. As an alternative, BellSouth supports the appointment of a qualified, independent third party to serve as the sole initial arbiter of outputs and associated content protection technologies under the Commission's Plug and Play framework."); Comments of ATI Technologies, Inc., CS Docket No. 97-80, PP Docket No. 00-67, at 2 (Feb. 13, 2004) (ATI  
(continued...))

contends that CableLabs is the “natural authority” to review the effectiveness of new digital outputs and content protection technologies.<sup>21</sup> But CableLabs is not a “natural” entity – it was created by the cable industry to perform a valuable function specifically on behalf of that industry. Owned and directed by a single industry, CableLabs cannot be expected to weigh and balance effectively the varying and subtle interests and concerns of all the stakeholders affected by the digital output and content protection technology approval process.<sup>22</sup>

The difficult position in which CableLabs is placed when forced to balance the interests and concerns of cable operators, content providers and equipment manufacturers has already been demonstrated by the delays encountered in this proceeding. For example, the standards and licensing terms ultimately resolved in the *Plug-and-Play MOU* were supposed to be in place to enable retail availability of competitive devices by July 2000. Instead, disputes over the standards and terms that content owners wanted CableLabs to include in the license for CableCard descrambling technology delayed deployment until the industries finally negotiated the *Plug-and-Play MOU* in late 2002.<sup>23</sup> Indeed, disagreements over licensing terms advocated

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Comments) (“Only an independent entity representing the cable operator, consumer electronics and information technology industries and consumer interests should make approval and revocation determinations.”); AAI Comments at 5-6 (“Lacking the requisite independence to make impartial approval determinations which can have substantial competitive effects on multiple industry sectors, CableLabs *a fortiori* lacks the qualifications to make approval determinations . . . . Initial approvals should be the responsibility of the Commission or a recognized external standards-setting body.”); PK/CU Comments at 8-9 (“The Consumer Groups believe that the approval of new connectors and protection technologies should not be left to CableLabs, which is a private research entity and not an open standards body.”).

<sup>21</sup> NCTA Comments Summary at iii.

<sup>22</sup> See IT Industry Comments at 10-11.

<sup>23</sup> The Commission originally adopted rules in June 1998 requiring CableLabs to develop the standards necessary to make point-of-deployment (POD) modules (or “CableCards”) available for use in competitive navigation devices, including set-top boxes and digital cable-ready

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by the cable and content industries but opposed by equipment manufacturers continue in the wake of CableLabs' modification of the DFAST license, after the Commission issued the *Plug-and-Play Order*, to require Unidirectional Digital Cable Products to incorporate downresolution functionality.<sup>24</sup>

For these reasons, the IT Industry Commenters continue to recommend that the Commission modify the rules adopted in the *Plug-and-Play Order* to provide that initial determinations concerning digital output and content protection technologies to be used with Unidirectional Digital Cable Products will be made either pursuant to a self-certification framework or by an independent third party.

With respect to the relationship between the approval of technologies for use with the Broadcast Flag and in Unidirectional Digital Cable Products, we agree with the IT Coalition comments in the Broadcast Flag proceeding that there are important distinctions between the two

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television sets, by July 2000. *See* Report and Order, *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, CS Docket No. 97-80, 13 FCC Rcd 14775 (1998). That deadline slipped repeatedly, in large part because of disputes between the cable and consumer electronics industries over the content protection requirements that CableLabs sought to include in the terms of the license covering the scrambling/descrambling technology (DFAST) to be incorporated in the interface between the CableCard and the host device. *See, e.g., Answer of Consumer Electronics Retailers Coalition to "Hoedown" Questions*, CS Docket No. 97-80, at 1 (June 7, 2002) ("Failure or lack of good faith negotiations by the cable industry and its representatives as to this [PHILA] license has been identified by potential entrants as a major obstacle to accomplishing the objectives of the Report & Order in this Docket, and of the 1996 legislation that the Report & Order was meant to implement."); *see also Response of the National Cable & Telecommunications Association*, CS Docket No. 97-80 (Sept. 21, 2001); *Consumer Electronics Retailers Coalition Status Report*, CS Docket No. 97-80 (July 16, 2001); *Response of the Consumer Electronics Retailers Coalition*, CS Docket No. 97-80, at 2-5 (Aug. 2, 2000). The industries ultimately negotiated the *Plug-and-Play MOU* in an attempt to resolve the pending issues and finally make competitive navigation devices available to consumers. CableLabs was not involved in the *MOU* negotiations.

<sup>24</sup> *See, e.g.,* CEA Comments at 7-8; HRRC Comments at 9-10.

proceedings that militate against establishing a single unified regime.<sup>25</sup> However, in the absence of a showing to the contrary, we agree with NCTA that approval of a technology for use with Unidirectional Digital Cable Products should result in presumptive approval of that technology for use with the Broadcast Flag.<sup>26</sup> And, similar to the proposal made by Philips Electronics, we believe that it would be appropriate for the Commission to require that any entity charged with responsibility for evaluating technologies for use in Unidirectional Digital Cable Products give substantial favorable weight to the fact that a technology has already been approved for use with the Broadcast Flag.<sup>27</sup>

### **III. TECHNOLOGY “DE-LISTING” SHOULD BE CONTEMPLATED ONLY IN THE RAREST OF CIRCUMSTANCES.**

Several commenters note that there is a distinction between industry usage of the term “revocation,” referring to revocation of a single device’s authorization or certification to receive protected content when the device has been substantially compromised, and the Commission’s use of the term “revocation” to refer to de-listing of a technology from the list of

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<sup>25</sup> IT Coalition Broadcast Flag Comments at 14-16. Although the use of objective functional criteria applied pursuant to a self-certification regime and/or by an independent certification body have strong backing in both this and the Broadcast Flag proceedings, a key distinction between these two contexts centers on the applicable threat model and risk of piracy. In the case of the Broadcast Flag, content is delivered in the clear all the way to the home where the protection technology is triggered by the flag and applied. On the other hand, digital cable content is delivered from the head-end in an encrypted state and the content protection technology has to sustain that protection. This distinction creates an environment where content delivered under the different mechanisms is subject to different risks and threats of compromise. Content delivered in the clear is essentially “free” to consumers and thus the incentive to hack the protection scheme is lower. Accordingly, the scope and robustness of protection afforded to over-the-air broadcast content need not be identical to that afforded to encrypted digital cable content provided to consumers for a fee.

<sup>26</sup> NCTA Comments at 20.

<sup>27</sup> See Philips Comments at 6.

technologies approved for use with Unidirectional Digital Cable Products.<sup>28</sup> As indicated in the functional criteria proposed in the IT Industry Comments, individual device revocation takes place pursuant to the rules of each digital output or content protection technology and should not be subject to Commission regulation.<sup>29</sup> With respect to technology “de-listing,” we agree that no technology should be de-listed except prospectively by the Commission or an independent entity upon a showing that the technology has been significantly compromised and the harm to content providers of retaining the technology is outweighed by the harm to consumers, manufacturers and technology developers of de-listing the technology.

We reiterate our agreement with those commenters arguing that technologies should only be subject to de-listing from the list of approved technologies where (1) there is a showing that the technology has been so substantially compromised that its continued use will have the effect of destroying the commercial value of protected content, (2) all alternatives to remedy the security compromise without de-listing have been considered and (3) the harm to content owners from continued use of the technology is outweighed by the harm to consumers, manufacturers and technology developers from de-listing the technology.<sup>30</sup> We also agree with CEA and others that any de-listing under these circumstances should be prospective only, so that no action is taken that cancels or compromises the utility of a previously approved interface or technology for products in consumers’ hands, and that any prospective de-listing should include

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<sup>28</sup> See, e.g., CEA Comments at 8-9; HRRC Comments at 8.

<sup>29</sup> The rules, procedures and guidelines for individual device revocation should be subject to review only in connection with the Commission’s (or an independent third party’s) evaluation of a technology’s compliance with the functional criteria for approval for use with Unidirectional Digital Cable Products.

<sup>30</sup> See, e.g., Intel Comments at 7; PK/CU Comments at 9-10.

a “phase-out” or “grace” period for removing the de-listed technology from products entering the market.<sup>31</sup>

#### **IV. CONSUMER EDUCATION SHOULD BE THE RESPONSIBILITY OF THE AFFECTED INDUSTRIES.**

Finally, we agree with CEA that static pre-sale labeling requirements mandated by the Commission would be counter-productive and could lead to consumer confusion as technologies develop and evolve.<sup>32</sup> Nevertheless, the Commission should encourage the cable industry and device manufacturers to develop a voluntary labeling and consumer education effort. This campaign should be both more comprehensive and more dynamic than anything the Commission could mandate. It should inform consumers about the technical and related capabilities of Unidirectional Digital Cable Products in order to avoid confusion and promote consumer satisfaction. We believe that manufacturers of Unidirectional Digital Cable Products voluntarily will undertake these consumer education and product labeling efforts. As Time Warner notes in its comments, it is in the best interests of the cable industry and manufacturers to work together to promote consumer awareness and understanding of these new devices.<sup>33</sup>

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<sup>31</sup> CEA Comments at 9.

<sup>32</sup> CEA Comments at 9-10.

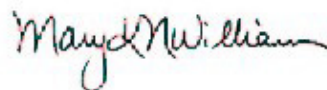
<sup>33</sup> Comments, of Time Warner, Inc., MB Docket No. 02-230, CS Docket No. 97-80, PP Docket No. 00-67, at 18-19 (Feb. 13, 2004) (Time Warner Comments).

### **CONCLUSION**

For the foregoing reasons, the Commission should modify the rules adopted in the *Plug-and-Play Order* to establish objective functional criteria, to be applied under a self-certification regime or by one or more independent third parties, for approval of digital output and content protection technologies for use with Unidirectional Digital Cable Products. The Commission should also specify that a technology's approval for use with Unidirectional Digital Cable Products can be revoked only prospectively upon a showing that the technology has been significantly compromised and the harm from retaining the technology outweighs the harm to consumers, manufacturers and technology developers from de-listing the technology. Finally, the Commission should encourage and support voluntary product labeling and consumer education efforts undertaken by the affected industries to increase consumer awareness of the functionalities and limitations of Unidirectional Digital Cable Products. The rules supported herein will facilitate the emergence of a vibrant competitive market for digital entertainment devices – and thereby promote the transition to DTV and economic growth – while providing

sufficient assurance to content providers and distributors that their content will be protected and no harm will be caused to their networks by technologies satisfying specific functional criteria.

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